Amendments to the Claims

Please amend claim 18 as shown below.

Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1. (Previously presented) A remote tire monitor system comprising:

a plurality of tire monitors associated with wheels of a vehicle, each wheel including a tire having a previously determined characteristic frequency response including passband frequencies and attenuation band frequencies, each tire monitor including a transmitter configured to transmit tire data at a transmission frequency chosen in the passband frequencies of the characteristic frequency response of the tire; and

a receiver configured to receive the tire data.

Claim 2. (Previously presented) The remote tire monitor system of claim 1 wherein the transmitter transmits at a transmission frequency at which attenuation of transmitted power of a radio signal conveying the tire data is minimized.

Claim 3. (Previously presented) The remote tire monitor system of claim 1 wherein the transmitter is tuned to transmit at one or more transmission frequencies selected for one of the tire and a model of the tire.

Claim 4. (original) The remote tire monitor system of claim 1 where each tire monitor is mounted to a respective wheel of the vehicle inside a respective tire.

Claim 5. (Previously presented) A tire monitor mountable inside a tire, the tire monitor comprising:

a tire data sensor; and

a transmitter configured to transmit tire data at one or more transmission frequencies chosen to be within a previously identified passband of frequencies of the tire wherein radio frequency energy is relatively slightly attenuated.

Claim 6. (Previously presented) The tire monitor of claim 5 wherein the tire has a previously determined characteristic frequency response including one or more identified attenuation bands and one or more identified passbands, the characteristic frequency response related to the structure of the tire, the transmission frequency chosen to be in the one or more identified passbands.

Claim 7. (original) The tire monitor of claim 6 wherein the tire includes radially positioned metallic strands of a predetermined length defining in part the characteristic frequency response of the tire, and wherein the transmitter is configured to transmit at a transmission frequency related to the configuration of the metallic strands.

Claim 8. (original) The tire monitor of claim 6 wherein the tire includes circumferentially positioned metallic strands of a predetermined length and wherein the transmitter is configured to transmit at a transmission frequency having a wavelength substantially less than the predetermined length.

Claim 9. (original) The tire monitor of claim 8 wherein the transmitter is configured to transmit at a transmission frequency greater than 600 MHz.

Claim 10. (original) The tire monitor of claim 8 wherein the transmitter is configured to transmit at a transmission frequency in a range from 800 MHz to 1000 MHz.

Claim 11. (original) The tire monitor of claim 5 wherein the tire is of a predetermined model and wherein the one or more transmission frequencies are chosen according to the predetermined model.

Claim 12. (Previously presented) The tire monitor of claim 11 wherein the predetermined model has been characterized for frequency response, the frequency response including the passband of frequencies.

Claim 13. (original) A method for operating a remote tire monitor system of a vehicle, the method comprising:

producing tire data indicative of a tire characteristic of a tire of the vehicle; and

using the tire data to modulate a radio carrier signal, the radio carrier signal having a transmission frequency chosen for reduced attenuation of the radio carrier signal by the tire.

Claim 14. (original) The method of claim 13 further comprising:

receiving the radio carrier signal; and

demodulating the radio carrier signal to recover the tire data.

Claim 15. (original) The method of claim 13 further comprising:

transmitting the radio carrier signal at a predetermined transmission power.

Claim 16. (Previously presented) A method for selecting a transmission frequency for a tire monitor for use with a tire, the tire monitor communicating tire data to a remote receiver when mounted on the tire, the method comprising:

characterizing frequency response of the tire to radio transmissions of selected frequencies; and

selecting a transmission frequency for the tire monitor by using the frequency response of the tire to identify one or more frequencies having reduced attenuation of the radio transmissions and selecting the transmission frequency from among the one or more frequencies.

Claim 17. (original) The method of claim 16 wherein characterizing the frequency response of the tire comprises:

identifying at least one attenuation band of frequencies of the tire; and

selecting the transmission frequency outside the at least one attenuation band of frequencies.

Claim 18. (currently amended) The method of claim 16 wherein characterizing the frequency response of the tire comprises:

identifying at least one passband of frequencies of the tire; and

selecting the transmission frequency within the at least one passband ~~band~~ of frequencies.

Claim 19. (Previously presented) The method of claim 16 further comprising:

associating the selected transmission frequency with a tire model of the tire; and

selecting the transmission frequency for substantially all tire monitors for use with substantially all tires of the tire model.

Claim 20. (original) The method of claim 16 wherein selecting a transmission frequency comprises:

identifying one or more frequencies providing reliable transmission from the tire monitor to the remote receiver; and

tuning the tire monitor to transmit at the one or more frequencies.

Claim 21. (Previously presented) A remote tire monitor system for a vehicle having a plurality of wheels, the remote tire monitor system comprising:

one or more tire monitors, each respective tire monitor being associated with a tire of a respective wheel of the vehicle, the tire having a previously determined characteristic frequency response to electromagnetic energy imparted on the tire, each respective tire monitor including

a respective tire data sensor, and

a respective radio transmitter coupled with the tire data sensor and configured to transmit electromagnetic energy to convey tire data, the respective radio transmitter transmitting the electromagnetic energy at one or more

transmission frequencies chosen in relation to the characteristic frequency response of the tire; and

a receiver configured to detect the transmitted electromagnetic energy.

Claim 22. (Previously presented) The remote tire monitor system of claim 21 wherein the respective radio transmitter transmits the electromagnetic energy at transmission frequencies chosen to be in a previously identified passband of the characteristic frequency response of the tire.

Claim 23. (Previously presented) A tire monitor mountable inside a tire of a vehicle, the tire monitor comprising:

a tire data sensor to produce data indicative of a tire condition; and

a transmit circuit coupled with the tire data sensor to transmit tire data at one or more transmission frequencies chosen to be within a previously identified passband of frequencies of a previously determined characteristic frequency response to electromagnetic energy imparted on the tire.